AMENDMENT UNDER 37 C.F.R. § 1.116 U.S. APPLICATION NO. 09/493,091 ATTORNEY DOCKET NO. Q57709

## **IN THE SPECIFICATION:**

Please replace the paragraph beginning at page 4, line 16 with the following rewritten paragraph.



Figure 1 shows the general structure of a prior art optical transmission system including regenerators in prior art, and partial transmission system including regenerators in the present invention.

Please replace the paragraph beginning at page 7, line 2 with the following rewritten paragraph.

Figure 4 shows a second embodiment of a regenerator designed to regenerate a single channel. It essentially includes an inserter/extractor system 33 which is a standard component in the field of optical transmission systems and a regenerator unit 16 (REGEN). The inserter/extractor system 33 includes a first three-port optical circulator 34, a section 36 of optical line provided with an optical reflector 38, for example a Braggg filter, to reflect the channel  $\lambda_k$ , and a second optical circulator 40. These components are arranged, in a manner well known in the art, to extract the channel  $\lambda_k$  from the optical line and to direct it to the input of the regenerator unit 16 (REGEN) and to insert the regenerated channel  $\lambda_k$  received from the regenerator unit 16 (REGEN) into the optical line.



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Please replace the paragraph beginning at page 8, line 17 with the following paragraph.

The supervisory means in the regenerator shown in figure 6 include: an optical reflector 52 for extracting and then inserting the supervisory channel  $\lambda_s$ , an optical coupler or demultiplexer 54 for separating the channels  $\lambda_k$  and  $\lambda_s$  extracted from the line by the circulator 34 and the reflectors 38, 52, an optical coupler or multiplexer 56 for remultiplexing the channels  $\lambda_k$  and  $\lambda_s$  after they have been processed, and a supervisory unit 58 for receiving information on the status of the regenerator 16 (REGEN) and on the status of the channel  $\lambda_k$  via an optical coupler 60 sampling a portion of the signal on the channel  $\lambda_k$  at the output of the regenerator 16 (REGEN), the supervisory unit 58 transmitting that information on the channel  $\lambda_s$  to the optical coupler or multiplexer 56.

